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Check List of Vascular Plants of The Great Smoky Mountains

HAROLD L. HOFFMAN

The following list, based entirely on collections almost all of which are on file in the Great Smoky Mountains National Park herbarium and the Tennessee State herbarium at the University of Tennessee; follows generally the order of Gray's Manual of Botany, eighth edition (1950). The list includes some 70 species of southeastern plants not included in the manuals for the plants of northeastern states and adjoining provinces but are described in other manuals and papers.

The entire list was submitted to Dr. A. J. Sharp and Dr. Royal E. Shanks of the Botany Department of the University of Tennessee and Mr. Floyd A. Swink, naturalist of the Morton Arboretum, Lisle, Illinois for general review. Other members of the University Staff made special reviews as follows:

Mr. J. K. Underwood—Gramineae. Cyperaceae and Juncaceae

Mr. James Pringle—Lycopodium, Dryopteris, Thelypteris, Gentiana, Gaura

Papers of former graduate students and staff members were used for guidance as follows:

Saxifraga—Miss Lois Lord

Heuchera—Mr. J. P. Gillespie

A recapitulation of families, genera and subgeneric entities (species, variants, forms and named hybrids) present in the Great Smoky Mountains National Park and those reported in Gray's Manual follows:

	Great Smoky Mountains National Park	Gray's Manual
Families	126	168
Genera	531	1,133
Species, variants and forms, approximately	1,450	8,340

Explanation of numerals following certain species:

LIBRARY

GREAT SMOKY MOUNTAINS
NATIONAL PARK

- (1) Naturalized, generally persisting, but not native
- (2) Collected in the Great Smokies outside of the Park, mostly within one mile of the boundary line
- (3) Genera or species under review, or to be reviewed, for possible change in designation
Synonyms, some of which were used by authors recently, follow certain of the taxa

PTERIDOPHYTA

Family
number

1. EQUISETACEAE (Horsetail Family)
Equisetum arvense L.
2. LYCOPODIACEAE (Club moss Family)
Lycopodium clavatum L.
L. complanatum L. var. *flabelliforme* Fern.
L. lucidulum Michx.
L. obscurum L.; var. *dendroideum* (Michx.) DC.
L. porophilum Lloyd & Underw.
L. selago L. var. *appressum* Desv.
L. tristachyum Pursh
3. SELAGINELLACEAE (Spikemoss Family)
Selaginella apoda (L.) Fern.
4. ISOËTACEAE (Quillwort Family)
Isoëtes engelmanni A. Br.; var. *caroliniana* A. A-Eat.
5. OPHIOGLOSSACEAE (Adder's-tongue Family—Grape fern, Adder's-tongue)
Botrychium dissectum Spreng.; forma *obliquum* (Muhl.) Fern.; var. *tenuifolium* (Underw.) Farw.
B. virginianum (L.) Sw.
B. matricariaefolium A. Br.
Ophioglossum vulgatum L. var. *pycnostichum* Fern.
6. OSMUNDACEAE (Flowering Fern Family)
Osmunda cinnamomea L.
O. claytoniana L.
O. regalis L. var. *spectabilis* (Willd.) Gray
7. SCHIZAEACEAE (Curly-grass Family)
Lygodium palmatum (Bernh.) Sw.
8. HYMENOPHYLLACEAE (Filmy Fern Family)
Trichomanes petersii A. Gray
9. POLYPODIACEAE (Fern Family—Bladder, Shield, Sensitive, Hay Scented, etc. Ferns)
Woodsia obtusa (Spreng.) Torr.

Cystopteris bulbifera (L.) Bernh.
C. fragilis (L.) Bernh. var. *protrusa* Weath.
C. diaphana × *protrusa*
Onoclea sensibilis L.
Dryopteris goldiana (Hook.) A. Gray
D. marginalis Gray; *forma elegans* (J. Robins.) F. W. Gray
D. spinulosa (O. F. Muell.) Watt; var. *americana* (Fisch.)
 Fern. (*D. campyloptera* (Kunze) Clarkson); var.
fructuosa (Gilbert) Trudell; var. *intermedia*
 (Muhl.) Gray (*D. intermedia* (Muhl.) Gray).
Thelypteris hexagonoptera (Michx.) Weatherby (*Dryopteris*
 Christens.)
T. noveboracensis (L.) Gray (*Dryopteris* Gray)
T. phegopteris (L.) Slosson (*Dryopteris* Christens.)
Polystichum acrostichoides (Michx.) Schott
Dennstaedtia punctilobula (Michx.) Moore
Athyrium filix-femina (L.) Roth var. *aspleniodies* forma
 sub-*tripinnatum* (Butters) Fern.; var. *michaui*
 (Spreng.) Fern. (*A. angustum* (Willd.) Presl.)
A. pycnocarpon (Spreng.) Tidestr.
A. thelypteroides (Michx.) Desv.
Camptosorus rhizophyllus (L.) Link
Asplenium montanum Willd.
A. platyneuron (L.) Oakes
A. resiliens Kunze
A. trichomanes L.
Woodwardia areolata (L.) Moore
Pellaea atropurpurea (L.) Link
Cheilanthes lanosa (Michx.) DC.
C. vestita (Spreng.) Sw.
Adiantum pedatum L.
Pteridium aquilinum (L.) Kuhn. var. *latiusculum* (Desv.)
 Underw.
Polypodium polypodioides (L.) Watt; *forma incisum* (Gray)
 Gilbert (2)
P. virginianum L.

SPERMATOPHYTA (GYMNOSPERMAE)

13. PINACEAE (Pine Family—Fir, Hemlock, Pine, Arbor Vitae, and Juniper)
Abies fraseri (Pursh) Poir.
Tsuga canadensis (L.) Carr. (*Tsuga caroliniana* Engelm. not
 collected in Smokies)

Picea rubens Sarg.

P. abies (L.) Karst (1)

P. pungens Engelm.

Pinus echinata Mill.

P. pungens Lamb.

P. rigida Mill.

P. strobus L.

P. virginiana Mill.

Thuja occidentalis L. (1) escape

T. orientales L. (1) escape

Juniperus virginiana L.

SPERMATOPHYTA (ANGIOSPERMAE) MONOCOTYLEDONS

14. TYPHACEAE (Cat-tail Family)

Typha latifolia L.

15. SPARGANIACEAE (Bur-reed Family)

Sparganium americanum Nutt.

S. androcladum (Engelm.) Morong

19. ALISMATACEAE (Water Plantain Family—Mud-plantain, Arrow-head)

Alisma subcordatum Raf.

Sagittaria latifolia Willd. var. *pubescens* (Muhl.) J.G. Sm.

22. GRAMINEAE (Grass Family)

Arundinaria gigantea (Walt.) Chapm. (includes *A. tecta* (Walt.) Muhl.)

A. japonica Sieb. & Zucc. (1); (*Pseudosasa* Makino)

Bromus ciliatus L.

B. commutatus Schrad. (1)

B. japonicus Thunb. (1)

B. purgans L.; forma *laevivaginatus* Wieg.

B. racemosus L. (1)

B. secalinus L. (1) (2)

Festuca arundinacea Schreb. (1)

F. dertonensis (All.) Asch. & Graebn.

F. elatior L. (1)

F. obtusa Biehl.

F. octoflora Walt.

Glyceria melicaria (Michx.) F. T. Hubbard

G. nubigena W. A. Anders.

G. striata (Lam.) Hitchc.

Poa alsodes Gray

P. annua L. (1)

P. chapmaniana Scribn.

Supplement to Check List, Vascular Plants,
Great Smoky Mountains*

HAROLD L. HOFFMAN

This list gives effect to collections made since original publication, and also to certain corrections in that list.

Entities added or deleted appear in italic. Page and family numbers of the original check list are shown to facilitate the entering of the corrections on this list.

<i>Page</i>	<i>Family Number</i>	
3	9	Insert (<i>L.</i>) after <i>D. marginalis</i>
		After <i>D. spinulosa</i> var. <i>intermedia</i> , substitute <i>Underw.</i>
		for Gray
		After <i>T. noveboracensis</i> , substitute <i>Niewl.</i> for Gray

4 13 Add (1) end of line 3
 4 22 Delete semicolon following *A. japonica* Sieb. & Zucc. (1)
 Delete bracket after Zucc.
 Add after *F. octoflora* Walt. (*Vulpia Gmel.*)
 5 22 Add after *Sporobolus poirettii* (R.&S.) Hitchc. (1)
 Add after *A. perennans* (Walt.) Tuckerm. ; var. *aestivales*
 Vasey forma atherophora Fern.
 6 22 Add *M. sobolifera* (Muhl.) Trin. var. *setigera* Scribn.
 Add (1) after *Cynodon dactylon*
 Add var. *thinnium* Hitchc. & Chase after *P. columbianum*
 Scribn. Variant only present
 7 22 Add *E. giganteus* (Walt.) Muhl. (*Erianthus*)
 8 23 Add (*R. smallii* Britt.) after *Rhynchospora capitellata*
 Delete from next line *R. smallii* Britt.
 Add after *C. albursina* Sheld. (*C. laxiflora* Lam. var. *laticolia* Boott)
 Add *C. amphibola* Steud. var. *turgida* Fern.
 Add *C. cephalophora* Muhl.
 Add var. *brevicrinis* Fern. after *C. crinita* Lam.
 Add *C. emmonsii* Dew.
 Add *C. incompta* Bickn.
 Add *C. louisianica* Bailey
 9 23 Add *C. straminea* Willd.
 Add *C. styloflexa* Buckley
 9 31 Add *J. dichotomus* Ell.
 10 31 Add *J. interior* Wieg.
 add ; var. *anthelatus* Wieg. after *J. tenuis* Willd.
 Delete *Tydb.* and add *Rydb.* after *L. bulbosa* (Wood)
 32 Add (*Melanthium L.*) after *V. hybridum* (Walt.)
 Add (*Melanthium L.*) after *V. parviflorum* Michx.
 Add (*U. carolina Gmel. comb. nov.*) after *U. sessilifolia* L.
 Add (1) after *A. vineale* L.
 Add (1) after *L. tigrinum* L.
 Add (*E. americanum Ker*) after *Erythronium umbilicatum*
 11 T. cernuum L., correct spelling of variant to *macranthum*
 14 54 Change *R. patientia* L. (1) to *R. crispus* L.
 15 Del. (1) after *P. pensylvanicum* L.
 61 Add (1) after *S. media* (L.) Cyrillo
 16 64 Add var. *acutidens* Fern.; ssp. *muticum* DC. to *Aconitum uncinatum* L.
 17 65 Correct spelling of Blue Cobosh to Blue Cohosh

71 Add var. *rotundifolia* (Greene) Fedde to *Sanguinaria canadensis* L. (variant only present)

18 73 Add (1) after *D. verna* L.

19 79 Add ; after *P. inodorus* L.

20 82 Add (*Michx.*) after *Waldsteinia fragarioides*

21 83 Correct spelling of *Schranksia microphylla* (Dryander) to Macbr.

21 Add (1) after *M. alba* Desr.

22 Add *S. riparia* Kearney

Add *Coronaria varia* L.

23 92 Add *E. supina* Raf.

24 105 Add (*I. biflora* Walt.) after *Impatiens capensis* Meerb.

25 110 Correct spelling of *Stewartia ovata* (Car.) to Cav.

26 115 Add ; var. *leiocarpa* (Fern. & Wieg.) Wieg. after *V. pensylvanica*. Michx.

122 Add *N. aquatica* L. (3) No flowers or fruit available

125 Delete ; after *L. palustris* L. and (1) after Fern. & Grisc.
Variant only

27 129 Add *O. longistylis* (Torr.) DC.

Add *Eryngium yuccifolium* Michx. (2)

28 133 Add *V. angustifolium* Ait.

29 Add (3) after *V. stamineum* L. x *pallidum*

135 Add *L. nummularia* L. (1)

30 146 Add (1) after *I. hederacea* L.

31 149 Add *Anchusa azurea* Mill. (1) (2)

31 150 Add *V. brasiliensis* Vell (1)

151 Add ; also a glabrous form after *Stachys clingmanii* Small

32 152 Add *S. nigrum* L. (1)

33 154 Add (*might be native*) after *Catalpa speciosa* Warden (1)

34 161 Change *Houstonia caerulea* L. to *Hedyotis caerulea* (L.)
Hook. *Hedyotis* is now the genus designation replacing *Houstonia*
Add (L.) T.&G.; var. *tenuifolia* (Nutt.) Fosberg to
H. purpurea
Change *H. serpyllifolia* to *H. serpyllifolia* (*Michx.*) Fosberg;
forma *alba* (Alex.) Fosberg
Delete *H. tenuifolia* Nutt.

37 168 Add *A. simplex* Willd. (Aster)
Delete ; var. *loriformis* Burgess after *A. sylvestris* Burgess
Add ; var. *loriformis* Burgess after *A. undulatus* L.
Add & Sherff after *Xanthium chinense* Mill.

Add ; var. *sericea* (*T. V. Moore*) *Fern.* & *Schub.* (3) after
R. serotina Nutt.
Add *H. glaucophyllis* sp. nov. (3)
Add *H. hirsutus* Raf. (2)

ADD TO INDEX OF FAMILIES AND GENERA

<i>Page</i>		<i>Family</i>
39	Anchusa	149
41	Eryngium	129
42	Lithospermum	149
42	Hedyotis (to replace Houstonia)	161

PARENTHETICAL SYMBOLS

(1) Naturalized, generally persisting, but not native.
(2) Collected in the Smokies outside of the Park, mostly within one mile of the boundary line.
(3) Genera or species under review or to be reviewed for possible change in designation.

GATLINBURG, TENNESSEE

P. compressa L. (1)
P. cuspidata Nutt.
P. pratensis L. (1)
P. saltuensis Fern. & Wieg.
P. sylvestris A. Gray
Dactylis glomerata L. (1)
Eragrostis hypnoides (Lam.) BSP.
E. spectabilis (Pursh) Steub.
Triodia flava (L.) Smyth
Uniola latifolia Michx.
U. laxa (L.) BSP.
U. sessiliflora Poir.
Agropyron repens (L.) Beauv.
Lolium multiflorum Lam. (1)
L. perenne L.
Triticum aestivum L. (1)
Hordeum pusillum Nutt.
Elymus canadensis L.
E. interruptus Buckl.
E. virginicus L.; var. *glabriflorus* (Vasey) Bush; forma *hir-sutiglumis* (Scribn.) Fern.

Hystrix patula Moench
Arrhenatherum elatius (L.) Presl. (1)
Holcus lanatus L. (1)
Sphenopholis nitida (Biehler) Scribn.
Trisetum pensylvanicum (L.) Beauv.
Avena sativa (L.) (1)
Danthonia compressa Austin
D. sericea Nutt.
D. spicata (L.) Beauv.
Sporobolus poiretii (R. & S.) Hitchc.
Calamagrostis cainii Hitchc.
C. cinnoidea (Muhl.) Bart.
Agrostis alba L. (1)
A. borealis Hartm. var. *americana* (Scribn.) Fern.
A. elliottiana Schult.
A. hyemalis (Walt.) BSP.
A. perennans (Walt.) Tuckerm.
A. scabra Willd.
Aristida sp. (Genus reported present, not collected)
Cinna arundinacea L.
C. latifolia (Trev.) Griesb.

Muhlenbergia schreberi J. F. Gmel. (1)
M. sylvatica Torr.
M. tenuiflora (Willd.) BSP.
Brachyelytrum erectum (Schreb.) Beauv.
Phleum pratense L. (1)
Cynodon dactylon (L.) Pers.
Eleusine indica (L.) Gaertn. (1)
Anthoxanthum odoratum L. (1)
Leersia hexandra Swartz
L. virginica Willd.
L. oryzoides (L.) Swartz
Digitaria sanguinalis (L.) Scop. (1)
D. violescens Link (1)
D. ischaemum (Schreb.) Muhl.
Paspalum ciliatifolium Michx. var. *muhlenbergii* (Nash)
 Fern.
P. laeve Michx.; var. *pilosum* Scribn.; var. *circulare* (Nash)
 Fern.
P. urvillei Steud. (1)
P. dilatatum Poir. (1)
P. pubiflorum Rupr. var. *glabrum* Vasey
Panicum agrostoides Spreng.
P. anceps Michx.
P. boscii Poir.
P. clandestinum L.
P. columbianum Scribn.
P. commutatum Schultes; var. *ashei* (Pearson) Fern.
P. depauperatum Muhl.
P. dichotomiflorum Michx.
P. dichotomum L.
P. lanuginosum Ell. var. *fasciculatum* (Torr.) Fern.; var.
implicatum (Scribn.) Fern; var. *lindheimeri* (Nash)
 Fern.
P. latifolium L.
P. laxiflorum Lam. incl. *P. xalapense* HBK.
P. longifolium Torr.
P. meridionale Ashe
P. microcarpon Muhl.
P. philadelphicum Bernh.
P. polyanthes Schultes
P. scoparium Lam.
P. sphaerocarpon Ell.

P. stipitatum Nash
 P. tuckermani Fern.
 P. verrucosum Muhl.
 P. villosissimum Nash
 P. virgatum L. var. cubense Griseb. (2)
 P. yadkinense Ashe
 Echinochloa crusgalli (L.) Beauv. (1)
 Setaria geniculata (Lam.) Beauv. (1)
 S. glauca (L.) Beauv. (*S. lutescens* (Wieg.) Hubb.) (1)
 S. viridis (L.) Beauv. (1)
 Miscanthus sinensis Anderss. (1); var. gracillimus Hitchc. (1)
 Erianthus alopecuroides (L.) Ell.
 Eulalia viminea (Trin.) Ktze. (*Microstegium vimineum* (Trin.) A. Camus)
 Andropogon gerardi Vitman (*A. furcatus* Muhl.)
 A. scoparius Michx.
 A. ternarius Michx.
 A. virginicus L.; var. abbreviatus (Hack) Fern. & Grisc.; var. hirsutior (Hack.) Hitchc.
 Sorghum halepense (L.) Pers. (1)
 Sorghastrum ellottii (Mohr.) Nash
 S. nutans (L.) Nash

23. CYPERACEAE (Sedge Family)

Cyperus dipsaciformis Fern.
 C. flavescens L. var. poaeformis (Pursh) Fern.
 C. globulosus Aubl.
 C. ovularis (Michx.) Torr.
 C. polystachyos Rottb. var. texensis (Torr.) Fern.
 C. praelongatus Steud.
 C. retrorsus Chapm.
 C. rivularis Kunth.
 C. strigosus L.
 C. tenuifolius (Steud.) Dandy (*Kyllinga pumila* Michx.)
 Dulichium arundinaceum (L.) Britt.
 Eleocharis obtusa (Willd.) Schultes
 Bulbostylis capillaris (L.) C. B. Clarke
 Fimbristylis autumnalis (L.) R. & S.
 Scirpus atrovirens Willd.
 S. cespitosus L. var. callosus Bigel.
 S. cyperinus (L.) Kunth.
 S. lineatus Michx.
 S. polyphyllus Vahl

S. rubricosus Fern. (*S. eriophorum* Michx.)
Rhynchospora capitellata (Michx.) Vahl; forma controversa
 (S. F. Blake) Gale
R. smallii Britt.
Scleria pauciflora Muhl.
S. triglomerata Michx.
Cymophyllum fraseri (Andr.) Mackenz.
Carex aestivalis M. A. Curtis
C. albursina Sheld.
C. artitecta Mack
C. austro-caroliniana Bailey
C. baileyi Britt.
C. blanda Dew. (2)
C. bromoides Schkuhr
C. brunnescens (Pers.) Poir.; var. *sphaerostachya*. (Tuck-
 erm.) Kukenth.
C. cherokeensis Schwein.
C. communis L. H. Bailey
C. convoluta Mackenz.
C. crinita Lam.; var. *gynandra* (Schwein.) Schwein. & Torr.
C. debilis Michx.; var. *rudgei* Bailey; var. *pubera* Gray; var.
interjecta Bailey
C. digitalis Willd.; var. *macropoda* Fern.
C. eburnea Boott
C. festucacea Schkuhr
C. frankii Kunth
C. grayii Carey var. *hispidula* Gray
C. hirsutella Mackenz.
C. intumescens Rudge; var. *fernaldii* Bailey
C. laevivaginata (Kukenth.) Mackenz.
C. laxiflora Lam.; var. *gracillima* Boott; var. *purpurifera*
 (Mackenz.) Gleas.
C. leptalea Wahlenb. (*C. purpurifera* Mackenz.)
C. leptonervia Fern. (*C. laxiflora* var. Fern.)
C. lupulina Muhl.
C. lurida Wahlenb.
C. misera Buckl.
C. nigromarginata Schwein.
C. normalis Mackenz.
C. pensylvanica Lam.; var. *distans* Peck
C. plantaginea Lam.

- C. prasina Wahlenb.
- C. projecta Mackenz.
- C. radiata (Wahlenb.) Dewey
- C. rosea Schkuhr
- C. ruthii Mackenz.
- C. scabrata Schwein.
- C. scoparia Schkuhr
- C. squarrosa L.
- C. stipata Muhl.
- C. striatula Michx.
- C. swanii (Fern.) Mackenz.
- C. texensis (Torr.) L. H. Bailey
- C. torta Boott
- C. tribuloides Wahlenb.
- C. virescens Muhl.
- C. vulpinoidea Michx.

24. ARACEAE (Arum Family—Jack-in-the-pulpit, Arrow Arum, Flag-root)

- Arisaema dracontium (L.) Schott.
- A. quinatum (Nutt.) Schott. (3)
- A. triphyllum (L.) Torr.; forma pusillum (Peck) Fern. (3)
- A. atrorubens (Ait.) Blume
- Peltandra virginica (L.) Schott. & Endl.
- Acorus calamus L.

29. COMMELINACEAE (3) (Spiderwort Family—Dayflower, Spiderwort)

- Commelina communis L. (1); var. ludens (Miquel) C. B. Clarke
- C. diffusa Burm.f.
- C. virginica L.
- Tradescantia ohiensis Raf.
- T. subaspera Ker.; var. montana (Shuttlew.) Anders. & Woodson

31. JUNCACEAE (Rush Family—Bog-Rush, Woodrush)

- Juncus acuminatus Michx.
- J. biflorus Ell. (*J. aristulatus* of Gray's Ed. 7, not Michx.)
- J. canadensis J. Gay
- J. coriaceus Mackenz.
- J. debilis Gray
- J. dudleyi Wieg.
- J. effusus L.; var. solutus Fern. & Wieg.; var. compactus Lej. & Court.

J. gymnocarpus Coville
J. marginatus Rostk.
J. polycephalus Michx.
J. scirpoides Lam. (2)
J. tenuis Willd.
Luzula acuminata Raf.; var. *carolinae* (S. Wats.) Kuntze
L. bulbosa (Wood) Tydb.
L. echinata (Small) F. J. Herm.

32. LILIACEAE (Lily Family)

Chamaelirium luteum (L.) Gray
Amianthium muscaetoxicum (Walt.) Gray
Stenanthium gramineum (Ker.) Morong; var. *robustum* S. Wats.
Veratrum viride Ait.
V. hybridum (Walt.) J. H. Zimmerman
V. parviflorum Michx.
Uvularia grandiflora Sm.
U. perfoliata L.
U. pudica (Walt.) Fern. (*Oakesia puberula* Wats.); var. *nitida* (Britt.) Fern.
U. sessilifolia L. (*Oakesia s.* Wats.)
Allium canadense L.
A. tricoccum Ait. (*Validallium* Small)
A. vineale L.
Hemerocallis fulva L. (1)
Lilium canadense L. var. *editorum* Fern.
L. grayi Wats.
L. michauxii Poir.
L. philadelphicum L.
L. superbum Michx.
L. tigrinum L.
Erythronium umbilicatum ssp. *monostylum* Parks & Hardin
Ornithogalum umbellatum L. (1) (2)
Yucca filamentosa L. (1)
Y. flaccida Haw.
Clintonia borealis (Ait.) Raf.
C. umbellulata (Michx.) Morong
Smilacina racemosa (L.) Desf.
Maianthemum canadense Desf.
Disporum lanuginosum (Michx.) Nicholson
D. maculatum (Buckl.) Britt.
Streptopus amplexifolius DC. var. *americanus* Schultes

S. roseus Michx.; var. *perspectus* Fassett
Polygonatum biflorum (Walt.) Ell.
P. canaliculatum (Muhl.) Pursh
P. pubescens (Willd.) Pursh
Convallaria majalis L. (1)
C. montana Raf.
Medeola virginiana L.
Trillium catesbaei Ell.
T. cernuum L. var. *maoranthum* Wieg. (3)
T. cuneatum Raf. (*T. hugeri* Small)
T. erectum L.; var. *blandum* Jennison (2); forma *albiflorum*
 R. Hoffm.; forma *luteum* Louis-Marie
T. flexipes Raf.
T. grandiflorum (Michx.) Salisb.
T. luteum (Muhl.) Harbison
T. undulatum Willd.
T. vaseyi Harb.; var. *simile* (Gleason) Bark.
Aletris farinosa L.
Smilax ecirrhata (Engelm.) S. Wats.
S. glauca (L.) Walt.
S. hugeri Small (2)
S. herbacea L. (*Nemexia* Small)
S. rotundifolia L. (incl. var. *quadrangularis* (Muhl.) Wood)
S. tamnoides L. var. *hispida* (Muhl.) Fern. (*S. hispida* Muhl.)
 34. DIOSCOREACEAE (Yam Family)
Dioscorea batatas Dcne. (1)
D. quaternata (Walt.) J. F. Gmel. (*D. paniculata* Michx.)
D. villosa L.
 35. AMARYLLIDACEAE (Amaryllis Family—*Narcissus*, Stargrass)
Narcissus pseudo—*Narcissus* L. (1)
Hypoxis hirsuta (L.) Coville
 36. IRIDACEAE (Iris Family—Blackberry lily, Blue-eyed Grass, Iris)
Belamcanda chinensis (L.) DC. (1)
Sisyrinchium angustifolium Mill. (*S. graminoides* Bickn.)
S. atlanticum Bickn.
S. mucronatum Michx.
Iris cristata Ait.
I. laevigata Fisch. (1)
I. verna L. var. *smalliana* Fern.
I. virginica L. var. *shrevei* E. Anders.
 39. ORCHIDACEAE (Orchis Family—Lady's-slipper, Orchis, Fringed Orchis, *Pogonia*, Ladies-tresses, Rattlesnake Plantain, etc.)

Cypripedium acaule Ait.; forma albiflorum Rand. & Redf.
 C. calceolus L. var. parviflorum (Salisb.) Fern. (3); var. pu-
 bescens (Willd.) Correll (3)
 Orchis spectabilis L.
 Habenaria ciliaris (L.) R.Br.
 H. clavellata (Michx.) Spreng.
 H. fimbriata (Ait.) R.Br.
 H. lacera Michx. (2)
 H. peramoena Gray
 H. psycodes (L.) Spreng.
 Cleistes divaricata (L.) Ames var. bifaria Fern.
 Triphora trianthophora (Sw.) Rydb.
 Isotria verticillata (Willd.) Raf.
 Calopogon pulchellus (Salisb.) R.Br.
 Spiranthes cernua (L.) Richard
 S. gracilis (Bigel.) Beck
 S. odorata (Nutt.) Lindl.
 S. tuberosa Raf.; var. grayi (Ames) Fern.
 S. vernalis Engelm. & Gray
 Goodyera pubescens (Willd.) R.Br.
 G. repens R.Br. var. ophioides Fern.
 Listera smallii Wieg. (*L. reniformis* Small)
 Corallorrhiza odontorhiza (Willd.) Nutt.
 C. wisteriana Conrad
 Malaxis unifolia Michx.
 Liparis liliifolia (L.) Richard
 Aplectrum hyemale (Muhl.) Torr.
 Tipularia discolor (Pursh) Nutt.
 Hexalectris spicata (Walt.) Barnh.

SPERMATOPHYTA (ANGIOSPERMAE) DICOTYLEDONS

41. SALICACEAE (Willow Family—Willow, Poplar)

Salix alba L. (1)
 S. babylonica L. (1)
 S. caroliniana Michx.
 S. discolor Muhl. (3)
 S. humilis Marsh.; var. microphylla (Andersss.) Fern.; var.
 rigiduscula (And.) Rob. & Fern.
 S. nigra Marsh.
 S. sericea Marsh.
 Populus alba L. (1)
 P. canescens Sm. (1)
 P. deltoides Marsh. (1)

P. grandidentata Michx. (1)
 × P. gileadensis Roleau (1)

44. JUGLANDACEAE (Walnut Family—Walnut, Hickory)

- Juglans cinerea L.
- J. mandshurica Maxim. (1)
- J. nigra L.
- Carya cordiformis (Wang.) K. Koch
- C. glabra (Mill.) Sweet
- C. illinoensis (Wang.) Koch (1)
- C. laciniosa (Michx.) Loud. (2)
- C. ovalis (Wang.) Sarg.
- C. ovata (Mill.) K. Koch
- C. pallida (Ashe) Engl. & Graebn.
- C. tomentosa Nutt.

45. CORYLACEAE (Hazel Family—Hazel, Ironwood, Hornbeam, Birch, Alder)

- Corylus americana Walt.
- C. cornuta Marsh.
- Ostrya virginiana (Mill.) K. Koch
- Carpinus caroliniana Walt.; var. virginiana (Marsh.) Fern.
- Betula alleghaniensis Britt. (*B. lutea* Michx.)
- B. lenta L.
- B. nigra L.
- Alnus serrulata (Ait.) Willd.

46. FAGACEAE (Beech Family—Beech, Chestnut, Oak)

- Fagus grandifolia Ehrh., var. caroliniana (Loud.) Fern.; two variants known locally as red beech and gray beech
- Castanea dentata (Marsh.) Borkh.
- C. mollissima Bl. (1)
- C. pumila (L.) Mill.
- Quercus alba L.; var. latiloba Sarg.
- Q. bicolor Willd.
- Q. coccinea Muenchh.
- Q. falcata Michx. (*Q. digitata* (Marsh.) Sudw.); × Q. anceps
 E. J. Palmer (*Q. falcata* × *imbricaria*)
- Q. imbricaria Michx.
- Q. marilandica Muenchh.
- Q. prinus L. (*Q. montana* Willd.)
- Q. rubra L. (*Q. borealis* Michx.)
- Q. stellata Wang.
- Q. velutina Lam.

47. ULMACEAE (Elm Family—Elm, Hackberry)

- Ulmus alata Michx.
- U. americana L.
- U. rubra Muhl. (*U. fulva* Michx.)
- Celtis laevigata Willd. var. smallii (Beadle) Sarg.
- C. occidentalis L. var. pumila (Pursh) Gray
- C. tenuifolia Nutt. var. georgiana (Small) Fern. & Schub.

48. MORACEAE (Mulberry Family—Mulberry, Osage Orange)

- Morus alba L. (1)
- M. rubra L.
- Maclura pomifera (Raf.) Schneid. (1)

50. URTICACEAE (Nettle Family—Wood-Nettle, Richweed, False Nettle, Pellitory)

- Laportea canadensis (L.) Wedd.
- Pilea pumila (L.) Gray
- Boehmeria cylindrica (L.) Sw.
- Parietaria pensylvanica Muhl. (2)

51. SANTALACEAE (Sandalwood Family—Buffalo-nut)

- Pyrularia pubera Michx.

52. LORANTHACEAE (Mistletoe Family—American Mistletoe)

- Phoradendron flavescens (Pursh) Nutt.

53. ARISTOLOCHIACEAE (Birthwort Family—Wild ginger, Dutchman's pipe, Snakeroot)

- Asarum ruthii Ashe (*Hexastylis ruthii* (Ashe) Small)
- A. canadense L.; var. acuminatum Ashe
- A. shuttleworthii Britten & Baker
- Aristolochia durior Hill
- A. serpentaria L.

54. POLYGONACEAE (Buckwheat Family—Dock, Jumpseed, Smartweed)

- Rumex acetosella L. (1)
- R. obtusifolius L. (1)
- R. patientia L. (1)
- Tovara virginiana (L.) Raf. (*Polygonum* L.)
- Polygonum aviculare L. var. littorale (Link) W.D.J. Koch
- P. ciliinode Michx.
- P. convolvulus L. (1)
- P. cristatum Engel. & Gray
- P. erectum L.
- P. hydropiperoides Michx.
- P. lapathifolium L.
- P. orientale L. (1)

P. pensylvanicum L. (1)
 P. persicaria L. (1)
 P. punctatum Ell.; var. leptostachyum (Meisn.) Small
 P. sagittatum L.
 P. scandens L.
 P. setaceum Baldw.

55. CHENOPODIACEAE (Goosefoot Family—Lamb's quarters, Mexican Tea)
Chenopodium album L. (1)
C. ambrosioides L. (1)

56. AMARANTHACEAE (Amaranth Family—Pigweed)
Amaranthus spinosus L. (1)
A. hybridus L. (1)

57. NYCTAGINACEAE (Four O'Clock Family)
Mirabilis jalapa L. (1)

58. PHYTOLACCACEAE (Pokeweed Family—Poke)
Phytolacca americana L.

59. AIZOACEAE (Mesembryanthemum Family—Indian chickweed)
Mollugo verticillata L. (1)

60. PORTULACACEAE (Purslane Family—Purslane, Spring Beauty)
Portulaca oleracea L. (1)
Claytonia caroliniana Michx. { visible characters of the
C. virginica L. } 2 species intergrade

61. CARYOPHYLLACEAE (Pink Family — Whitlow-wort, Pearlwort, Sandwort, Chickweed, Corn cockle, Campion, Soapwort, Pink)
Paronychia canadensis (L.) Wood
P. fastigiata (Raf.) Fern.
Sagina decumbens (Ell.) T. & G. (1)
Arenaria serpyllifolia L. (1)
Stellaria longifolia Muhl.
S. media (L.) Cyrillo
S. pubera Michx.; var. *silvatica* (Beguinot) Weath.
Cerastium nutans Raf.
C. viscosum L. (1)
C. vulgatum L. (1)
Agrostemma githago L. (1)
Lychnis alba Mill. (1)
L. coronaria (L.) Desr. (1)
Silene antirrhina L.
S. cucubalus Wibel var. *latifolia* (Reichenb.) G. Beck (1)
S. ovata Pursh

S. rotundifolia Nutt.

S. stellata (L.) Ait.f.

S. virginica L.

Saponaria officinalis L. (1)

Dianthus armeria L. (1)

63. NYMPHAEACEAE (Water Lily Family—Sacred Bean, Water Lily)

Nelumbo luteum Pers. sub-spec. *macrophyllum* (Small)
Bead. (1)

Nymphaea odorata Ait. (1) (probably introduced from outside of the park)

64. RANUNCULACEAE (Crowfoot Family—Buttercup, False Bugbane,

Meadow-Rue, etc.)

Ranunculus abortivus L.

R. acris L. (1)

R. allegheniensis Britt.

R. carolinianus DC.

R. hispidus Michx.; var. *greenmanii* Benson

R. laxicaulis (T. & G.) Darby

R. parviflorus L. (1)

R. pusillus Poir.

R. recurvatus Poir.

Trautvetteria caroliniensis (Walt.) Vail

Thalictrum clavatum DC.

T. coriaceum (Britt.) Small

T. dioicum L.

T. polygamum Muhl.

T. revolutum L.

Anemonella thalictroides (L.) Spach

Hepatica acutiloba DC.

H. americana (DC.) Ker

Anemone lancifolia Pursh

A. quinquefolia L.

A. virginiana L.

Clematis dioscoreifolia Levl. & Vaniot var. *robusta* (Corr.)

Rehd. (1)

C. viorna L.

C. virginiana L.

Aquilegia canadensis L.

Delphinium ajacis L. (1)

D. tricorne Michx.

Aconitum uncinatum L.

Cimicifuga americana Michx.

C. racemosa (L.) Nutt.
Actaea pachypoda Ell.
Xanthorhiza simplicissima Marsh.

65. BERBERIDACEAE (Barberry Family—May apple, Umbrella Leaf, Blue Cobosh, Barberry)
Podophyllum peltatum L.
Diphylleia cymosa Michx.
Caulophyllum thalictroides (L.) Michx.
Berberis vulgaris L. (1)

66. MENISPERMACEAE (Moonseed Family—Snailseed, Moonseed)
Cocculus carolinus (L.) DC.
Menispermum canadense L.

67. MAGNOLIACEAE (Magnolia Family—Cucumber, Fraser, Evergreen, Umbrella, and Great Leaved Magnolias, Tulip Poplar)
Magnolia acuminata L.; *forma aurea* (Ashe) Hardin
M. fraseri Walt.
M. grandiflora L. (1) (2) (from costal states)
M. tripetala L.
M. macrophylla Michx. (2)
Liriodendron tulipifera L.

68. CALYCANTHACEAE (Calycanthus Family—Carolina Allspice)
Calycanthus floridus L. var. *laevigatus* (Willd.) Torr. & Gray

69. ANNONACEAE (Custard Apple Family—Pawpaw)
Asimina triloba (L.) Dunal

70. LAURACEAE (Laurel Family—Sassafras, Wild Allspice)
Sassafras albidum (Nutt.) Nees
Lindera benzoin (L.) Blume

71. PAPAVERACEAE (Poppy Family—Bloodroot)
Sanguinaria canadensis L.

71A. FUMARIACEAE (Papaveraceae, sub-family Fumarioideae—Gray's Manual, 1950) (Fumitory Family—Mountain Fringe, Dutchman's Breeches, Squirrel corn, etc.)
Adlumia fungosa (Ait.) Greene
Dicentra cucullaria (L.) Bernh.
D. canadensis (Goldie) Walp.
D. eximia (Ker) Torr.
Corydalis sempervirens (L.) Pers.

72. CAPPARIDACEAE (Caper Family—Spider Flower)
Cleome spinosa Jacq. (1)

73. CRUCIFERAE (Mustard Family—Draba, Pennywort, Pepperwort, Shepherd's-purse, Mustard, various cresses, etc.)
Draba brachycarpa Nutt.

D. verna L.
Thlaspi perfoliatum L. (1)
Lepidium campestre (L.) R.Br. (1)
L. virginicum L.
Capsella bursa-pastoris (L.) Medic. (1)
Brassica juncea Coss. var. *crispifolia* Bailey (1)
B. rapa L. (1)
Sisymbrium officinale (L.) Scop. (1)
Arabidopsis thaliana (L.) Heynh. (1)
Rorippa islandica (Oeder) Borbas var. *fernaldiana* Butt. &
 Abbe (*Radicula palustris* (L.) Moench)
Nasturtium officinale R. Br. (1)
Barbarea verna (Mill.) Aschers. (1)
B. vulgaris L. (1); var. *arcuata* (Opiz.) Fries. (1)
Dentaria diphylla Michx.
D. heterophylla Nutt.
D. laciniata Muhl.
Cardamine clematitis Shuttlw.
C. flagellifera O. E. Schultz
C. hirsuta L. (1)
C. parviflora L. var. *arenicola* (Britt.) O. E. Schultz (2)
C. pensylvanica Muhl.
Arabis canadensis L.
A. laevigata (Muhl.) Poir.
A. lyrata L.
A. virginica (L.) Trelease

76. DROSERACEAE (Sundew Family)
Drosera rotundifolia L.

77. PODOSTEMACEAE (River weed Family—Threadfoot)
Podostemum ceratophyllum Michx.

78. CRASSULACEAE (Orpine Family—Stonecrop)
Sedum acre L. (1)
S. telephium L. (1)
S. ternatum Michx.

79. SAXIFRAGACEAE (Saxifrage Family—Ditch Stonecrop, False Goatsbeard, Brook Saxifrage, Foamflower, Alumroot, Bishop's Cap, Golden S., Grass of Parnassus, etc.)
Penthorum sedoides L.
Astilbe biternata (Vent.) Britt.
Boykinia aconitifolia Nutt.
Saxifraga careyana Gray
S. michauxii Britt.

S. micranthidifolia (Haw.) Britt.
Tiarella cordifolia L.; var. *austrina* Lakela
T. wherryi Lakela (3)
Heuchera americana L.; var. *interior* Rosend., Butt. & Lak.
H. longiflora Rydb.
H. scabra Rydb.
H. villosa Michx.; var. *intermedia* Rosend., Butt. & Lak.; var.
 macrorhiza (Small) Rosend., Butt. & Lak.
Mitella diphylla L.
Chrysosplenium americanum Schwein.
Parnassia asarifolia Vent.
Philadelphus hirsutus Nutt.; var. *nanus* Small
P. inodorus L. var. *strigosus* Beadl.; var. *grandiflorus* (Willd.)
 Gray
P. pubescens Loisel.
P. sharpianus Hu
Hydrangea arborescens L.; var. *radiata* Walt.
Itea virginica L.
Ribes cynosbati L.
R. glandulosum Grauer
R. odoratum Wendl. (1)
R. rotundifolium Michx.
 80. HAMAMELIDACEAE (Witch-hazel Family—Witch-hazel, Sweet
 Gum)
Hamamelis virginiana L.
Liquidambar styraciflua L.
 81. PLATANACEAE (Plane-tree Family—Sycamore)
Platanus occidentalis L.
 82. ROSACEAE (Rose Family—Ninebark, Spiraea, Goats-beard, Indian-
 physic, pear, apple, Quince, Hawthorn, Strawberry, etc.)
Physocarpus opulifolius (L.) Maxim.
Spiraea prunifolia Sieb. & Zucc. (1)
S. van houttii (Briot) Zab. (1)
Aruncus dioicus (Walt.) Fern.
Gillenia stipulata (Muhl.) Baill.
G. trifoliata (L.) Moench
Pyrus americana (Marsh.) DC. (*Sorbus* Marsh.)
P. angustifolia Ait. (*Malus* Michx.)
P. arbutifolia (L.) L.f.
P. communis L. (1)
P. floribunda Lindl. (*Aronia* Spach.)
P. malus L. (1)

P. melanocarpa (Michx.) Willd.
Chaenomeles lagenaria (Loisel.) Koidz. (1)
Amelanchier arborea (Michx.) Fern.
A. laevis Wieg.
A. sanguinea (Pursh) DC. (2)
Crataegus biltmoreana Beadle
C. boyntonii Beadle
C. calpodendron Medic. var. *microcarpa* (Chapm.) Palmer
C. collina Chapm.
C. crus-galli L.; var. *macra* (Beadle) Palmer
C. intricata Lange
C. macrosperma Ashe; var. *roanensis* Ashe
C. regalis Beadle
Fragaria virginiana Duchesne; var. *illinoensis* (Prince) Gray
Duchesnea indica (Andr.) Focke (1)
Waldsteinia fragarioides Tratt. var. *parviflora* (Small) Fern.
Potentilla canadensis L.; var. *vilosissima* Fern.; forma *ochroleuca* (Weath.) Fern. (*P. pumila* Poir.)
P. norvegica L. (*P. monspeliensis* L.)
P. recta L. (1)
P. simplex Michx.
Geum canadense Jacq.
G. radiatum Michx.
G. vernum (Raf.) T. & G.
G. virginianum L.
Rubus allegheniensis Porter
R. argutus Link; var. *scissus* Bailey
R. baileyanus Britt.
R. canadensis L.
R. enslenii Tratt.
R. flagellaris Willd.
R. hispidus L.; var. *obovalis* (Michx.) Fern.
R. idaeus L. var. *canadensis* Richards.
R. jennisonianus Bailey
R. occidentalis L.; forma *pallidus* (Bailey) Robins.
R. odoratus L.
R. pauxillus Bailey
R. tennesseanus Bailey
R. trivialis L.
Kerria japonica (L.) DC.
Alchemilla microcarpa Boiss. & Reut. (1)
Agrimonia gryposepala Wallr.

A. parviflora Ait.
 A. pubescens Wallr.
 A. rostellata Wallr.
Rosa arkansana Porter (3)
R. carolina L.
R. eglanteria L. (1)
R. palustris Marsh.
R. micrantha Sm. (1) (*R. rubiginosa* var. *micrantha* Lindl.)
R. setigera Michx. var. *tomentosa* T. & G.
Prunus americana Marsh.
P. angustifolia Marsh.
P. avium L. (1)
P. hortulana Bailey
P. munsoniana Wight & Hedrick (1)
P. pensylvanica L.f.
P. persica L. (1)
P. serotina Ehrh.
P. virginiana L.

83. LEGUMINOSAE (Legume Family—Mimosa, Sensitive Briar, Coffee Tree, Honey Locust, Senna, Red-Bud, Wild Indigo, Clovers, Peas, etc.)

Albizia julibrissin Durazzini (1)
Schrunkia microphylla (Dryander) Macbr.
Gymnocladus dioica (L.) K. Koch (1)
Gleditsia triacanthos L.
Cassia fasciculata Michx.
C. marilandica L.
C. nictitans L.
Cercis canadensis L.
Baptisia tinctoria (L.) R.Br.; var. *crebra* Fern.
Thermopsis caroliniana M. A. Curtis
T. mollis M. A. Curtis
Cladrastis lutea (Michx.[f.]) K. Koch
Crotalaria sagittalis L.
Cytisus scoparius (L.) Link (1)
Trifolium hybridum L. (1)
T. incarnatum L. var. *elatius* Gibelli & Belli (1)
T. pratense L. (1)
T. procumbens L. (1)
T. repens L. (1)
Melilotus officinalis (L.) Lam. (1)
M. alba Desr.

Psoralea psoraloides (Walt.) Cory
Amorpha cynostachya M. A. Curtis (3)
A. fruticosa L.; var. *tennesseensis* (Shuttlew.) Palmer (3)
A. glabra Desf. (3)
Tephrosia spicata (Walt.) T. & G.
T. virginiana (L.) Pers.
Robinia boyntoni Ashe (3)
R. grandiflora Ashe (3)
R. hispida L.
R. pseudo-acacia L.
Wisteria frutescens (L.) Poir. (1)
W. macrostachya Nutt.
Astragalus canadensis L. var. *carolinianus* (L.) Jones
Desmodium canadense (L.) DC.
D. canescens (L.) DC.
D. ciliare (Muhl.) DC.
D. glutinosum (Muhl.) Wood (*D. acuminatum* Michx.)
D. laevigatum (Nutt.) DC.
D. marilandicum (L.) DC.
D. paniculatum (L.) DC.; var. *angustifolium* T. & G.
D. rotundifolium DC.
D. sessilifolium (Torr.) T. & G.
D. viridiflorum (L.) DC.
D. nudiflorum (L.) DC.
Lespedeza capitata Michx.
L. cuneata (Dumont) G. Don (1)
L. intermedia (S. Wats.) Britt. ("*L. trutescens*" Grays Ed. 7)
L. hirta (L.) Hornem.
L. repens (L.) Bart.
L. stipulacea Maxim. (1)
L. striata (Thunb.) H. & A.
L. violacea (L.) Pers.
L. virginica (L.) Britt.
Stylosanthes biflora (L.) BSP.
Vicia caroliniana Walt.
V. villosa Roth. (1)
Lathyrus latifolius L. (1)
L. venosus Muhl. var. *intonsus* Butt. & St. John
Apios americana Medic.
Phaseolus polystachios (L.) BSP.
Strophostyles umbellata (Muhl.) Britt.
Clitoria mariana L.

Centrosema virginianum (L.) Benth.
 Amphicarpa bracteata (L.) Fern.; var. comosa (L.) Fern.
 Galactia volubilis (L.) Britt.
 Pueraria lobata (Willd.) Ohwi (1)
 Rhynchosia tomentosa (L.) H. & A. (*R. erecta* (Walt.) DC.)

84. LINACEAE (Flax Family)

- Linum striatum Walt.
- L. virginianum L.

85. OXALIDACEAE (Wood-Sorrel Family)

- Oxalis europaea Jord. forma cymosa (Small) Wieg.
- O. grandis Small
- O. montana Raf.
- O. stricta L.
- O. violacea L.

86. GERANIACEAE (Geranium Family)

- Geranium carolinianum L.
- G. columbinum L. (1)
- G. maculatum L.
- Erodium cicutarium (L.) Her. (1)

88. RUTACEAE (Rue Family—Prickly Ash)

- Zanthoxylum americanum L.

89. SIMAROUBACEAE (Quassia Family—Tree-of-heaven)

- Ailanthus altissima (Mill) Swingle (1)

91. POLYGALACEAE (Milkwort Family)

- Polygala cruciata L.
- P. curtissii Gray
- P. nuttallii T. & G.
- P. paucifolia Willd.
- P. polygama Walt.
- P. sanguinea L.; forma viridescens (L.) Farw.
- P. senega L.; var. latifolia T. & G.
- P. verticillata L.; var. ambigua (Nutt.) Wood; var. isocycla Fern.

92. EUPHORBIACEAE (Spurge Family—3-seeded Mercury, Leafflower, Spurge)

- Acalypha ostryaefolia Riddell
- A. rhomboidea Raf.
- A. virginica L.
- Phyllanthus caroliniensis Walt. (2)
- Euphorbia corollata L. (*Tithymalopsis* Small)
- E. maculata L. (*E. preslii* Guss.)

93. CALLITRICHACEAE (Water Starwort Family)

Callitricha heterophylla Pursh

94. BUXACEAE (Box Family)

Buxus sempervirens L. (1)

97. ANACARDIACEAE (Cashew Family—Sumac, Poison Ivy)

Rhus aromatica Ait. (2)

R. copallina L.; var. latifolia Engler

R. glabra L.

R. radicans L. (including forms sometimes designated as
R. toxicodendron)

R. typhina L.

99. AQUIFOLIACEAE (Holly Family)

Ilex longipes Chapm. (*I. collina* Alex.)

I. montana T. & G.; var. mollis (Gray) Britt. (*I. beadlei*
Ashe)

I. opaca Ait.

100. CELASTRACEAE (Stafftree Family—Burning Bush, Shrubby Bittersweet)

Euonymus americanus L.

E. atropurpureus Jacq.

E. obovatus Nutt.

Celastrus orbiculatus Thunb. (1)

101. STAPHYLEACEAE (Bladdernut Family)

Staphylea trifolia L.

102. ACERACEAE (Maple Family—Box-Elder, various Maples)

Acer negundo L.

A. pensylvanicum L.

A. platanoides L. (1)

A. rubrum L.; var. trilobum K. Koch

A. saccharinum L.

A. saccharum Marsh.; forma rugelii (Pax) Palmer & Steyermark

A. spicatum Lam.

103. HIPPOCASTANACEAE (Buckeye Family—Yellow Buckeye)

Aesculus octandra Marsh.

105. BALSAMINACEAE (Touch-me-not Family)

Impatiens capensis Meerb.

I. pallida Nutt.; forma speciosa Jennings

I. oliveri Wright (1)

106. RHAMNACEAE (Buckthorn Family—Buckthorn, New Jersey Tea)

Rhamnus caroliniana Walt.

Ceanothus americanus L.

107. VITACEAE (Vine Family—Virginia Creeper, Grapes)

Ampelopsis cordata Michx.

Parthenocissus quinquefolia (L.) Planch.; *forma hirsuta* (Donn) Fern.

Vitis aestivalis Michx. var. *argentifolia* (Munson) Fern.

V. baileyana Munson

V. cinerea Engelm. (3)

V. labrusca L.

V. rotundifolia Michx.

V. vulpina L.

108. TILIACEAE (Linden Family—Basswood)

Tilia heterophylla Vent.

109. MALVACEAE (Mallow Family)

Malva neglecta Wallr. (1)

M. sylvestris L. (1)

Sida spinosa L. (1)

Hibiscus moscheutos L.

H. syriacus L. (1)

110. THEACEAE (Camellia Family—Mountain Camellia)

Stewartia ovata (Car.) Weath. (*S. pentagyna* L'Her.)

111. GUTTIFERAE (St. John's-wort Family—St. Peter's-wort, St. John's-wort)

Ascyrum hypericoides L.; var. *multicaule* (Michx.) Fern.

Hypericum denticulatum Walt. var. *recognitum* Fern. & Schub. (3)

H. gentianoides (L.) BSP.

H. mitchelianum Rydb. (includes *H. graveolens* Buckl.)

H. perforatum L.

H. punctatum Lam.; var. *pseudomaculatum* (Bush) Fern.

H. mutilum L.; var. *parviflorum* (Willd.) Fern.

114. CISTACEAE (Rockrose Family—Rockrose, Pinweed)

Helianthemum bicknellii Fern.

Lechea racemulosa Michx. (3)

115. VIOLACEAE (Violet Family)

Hybanthus concolor (T. F. Forst.) Spreng.

Viola affinis LeConte

V. blanda Willd.

V. canadensis L.

V. conspersa Reichenb.

V. cucullata Ait.

V. cucullata × *papilionacea*; *cucullata* × *septentrionalis*;
 cucullata × *sororia*

V. emarginata (Nutt.) LeConte; e. × *sagittata*

V. fimbriatula Sm.

LIBRARY
GREAT SMOKY MOUNTAINS
NATIONAL PARK

V. hastata Michx.
V. hirsutula Brainerd
V. incognita Brainerd
V. kitaibeliana R. & S., var. *rafinesquii* (Greene) Fern. (*V. rafinesquii* Greene)
V. lanceolata L.
V. latiuscula Greene
V. macloskeyi F. E. Lloyd subsp. *pallens* (Banks) Baker
V. odorata L. (1)
V. papilionacea Pursh
V. pedata L.; var. *lineariloba* DC.
V. pensylvanica Michx. (*V. eriocarpa* and *scabriuscula* Schwein.)
V. primulifolia L.; var. *villosa* Eat.
V. pubescens Ait.
V. rostrata Pursh
V. rotundifolia Michx.
V. sagittata Ait.; *sagittata* × *sororia*
V. septentrionalis Greene
V. sororia Willd.
V. stoneana House
V. striata Ait.; v. *striata* × *rostrata*
V. tripartita Ell. forma *glaberrima* (DC.) Fern.
V. walteri House
V. triloba Schwein.

116. PASSIFLORACEAE (Passionflower Family)

Passiflora lutea L.
P. incarnata L.

121. LYTHRACEAE (Loosestrife Family—Clammy cuphea)
Cuphea petiolata (L.) Koehne

122. NYSSACEAE (Sour Gum Family—Black Gum)
Nyssa sylvatica Marsh. (3)

123. MELASTOMATACEAE (Melastoma Family—Meadow Beauty)
Rhexia mariana L.
R. virginica L.

125. ONAGRACEAE (Evening Primrose Family—False Loosestrife, Willow-herb, Evening-primrose, Gaura, Enchanter's Nightshade)
Ludwigia alternifolia L.
L. palustris L.; var. *americana* (DC.) Fern. & Grisc. (1)
Epilobium coloratum Biehler
E. glandulosum Lehm. var. *adenocaulon* (Hayssk.) Fern.

Oenothera biennis L.

O. fruticosa L.; var. *linearis* (Michx.) S. Wats.

O. laciniata Hill

O. pilosella Raf.

O. speciosa Nutt. (1)

O. tetragona Roth. var. *fraseri* (Pursh) Munz.; var. *latifolia* (Rydb.) Fern.; var. *longistipata* (Pennell) Munz

Gaura biennis L.

Circaeae alpina L.

C. quadrifolata Franch. & Sav. var. *canadensis* (L.) Hara (*C. latifolia* Hill)

128. ARALIACEAE (Ginseng Family)—Wild Sarsparilla, Spikenard, Hercules Club, Ginseng, English Ivy)

Aralia nudicaulis L.

A. racemosa L.

A. spinosa L.

Panax quinquefolius L.

P. trifolius L.

Hedera helix L. (1)

129. UMBELLIFERAE (Parsley Family)

Sanicula canadensis L.

S. gregaria Bickn.

S. marilandica L.

S. trifoliata Bickn.

Chaerophyllum tainturieri Hook. var. *floridanum* C. & R.

Osmorhiza claytoni (Michx.) C. B. Clarke

Torilis japonica (Houtt) DC. (1)

Zizia aptera (Gray) Fern.

Z. aurea (L.) W. D. J. Koch

Z. trifoliata (Michx.) Fern.

Cicuta maculata L.

Cryptotaenia canadensis (L.) DC.

Taenidia integerrima (L.) Drude

Ligusticum canadense (L.) Britt.

Thaspium barbinode (Michx.) Nutt.

T. pinnatifidum (Buckl.) Gray

T. trifoliatum (L.) Gray; var. *flavum* Blake

Angelica triquinata Michx. (*A. curtisii* Buckl.)

A. venenosa (Greenway) Fern.

Oxypolis rigidior (L.) C. & R.

Heracleum maximum Bartr.

Daucus carota L. (1)

130. CORNACEAE (Dogwood Family)

Cornus alternifolia L.f.
C. amomum Mill.
C. florida L.

131. CLETHRACEAE (White Alder Family—Sweet Pepper Bush)

Clethra acuminata Michx.

132. PYROLACEAE (Wintergreen Family—Wintergreen, Indian-pipe, Sweet Pinesap)

Chimaphila maculata (L.) Pursh
Monotropa uniflora L.
M. hypopithys L. (*Hypopithys lanuginosa* (Michx.) Nutt.)
Monotropsis lehmaniae Burm.f.
M. odorata Ell.

133. ERICACEAE (Heath Family—includes Azalea, Laurel, Sourwood, Huckleberries, Blueberries, etc.)

Rhododendron catawbiense Michx.

R. maximum L.

R. minus Michx.

R. arborescens (Pursh) Torr.; var. *richardsonii* Rehd.

R. calendulaceum (Michx.) Torr.

R. canescens (Michx.) Sweet

R. nudiflorum (L.) Torr.

R. roseum (Loisel) Rydb. (3)

R. viscosum (L.) Torr.; var. *montanum* Rehd.; forma *glau-cum* (Lam.) Voss

Leiophyllum buxifolium Ell. var. *hugeri* (Small) Schneid.
 (L. *lyoni* Sweet)

Menziesia pilosa (Michx.) Juss.

Kalmia latifolia L.

Pieris floribunda (Pursh) B. & H.

Lyonia ligustrina (L.) DC. (incl. var. *foliosiflora* (Michx.) Fern.)

Leucothoë fontanesiana (Steud.) Sleumer* (*L. editorum* Fern. & Schub.)

L. recurva (Buckley) Gray

Oxydendrum arboreum (L.) DC.

Epigaea repens L.

Gaultheria procumbens L.

Gaylussacia baccata (Wang.) K. Koch

G. ursina M. A. Curtis (*Decachaena* T. & G.)

Vaccinium arboreum Marsh. (*Batodendron* (Nutt.) Gray)

* K. Lems 1962 determination

V. atroccum (A. Gray) Heller
 V. constablaei Gray (incl. in *V. corymbosum* L. sensu lato)
 V. erythrocarpum Michx. (Hugeria Small)
 V. hirsutum Buckl. (*Cyanococcus* Rydb.)
 V. pallidum Ait. (*V. corymbosum* L. in part) (*Cyanococcus pallidus* (Ait.) Small)
 V. simulatum Small (*Cyanococcus* Small) (incl. in *V. corymbosum* L. sensu lato)
 V. stamineum L. (*Polycodium* Small); var. melanocarpum Mohr; var. neglectum (Small) Deam; var. candidans (Small) Mohr; stamineum × pallidum
 V. vacillans Torr. (*Cyanococcus* Small)

134. DIAPENSIACEAE (Diapensia Family—Galax)
 Galax aphylla L.

135. PRIMULACEAE (Primrose Family—Loosestrife, Water Pimpernel)
 Lysimachia ciliata L. (*Steironema ciliatum* (L.) Raf.)
 L. lanceolata Walt.
 L. quadrifolia Sims
 L. terrestris (L.) BSP.
 L. tonsa Wood
 Samolus parviflorus Raf. (*S. floribundus* HBK.)

138. EBENACEAE (Ebony Family—Persimmon)
 Diospyros virginiana L.

139. SYMPLOCACEAE (Sweetleaf Family—Yellowwood)
 Symplocos tinctoria (L.) L'Her.

140. STYRACACEAE (Storax Family—Silverbell)
 Halesia carolina L. var. monticola Rehd.

141. OLEACEAE (Olive Family—Ash, Lilac, Golden Bell, Fringe Tree, Privet)
 Fraxinus americana L.; var. biltmoreana (Beadle) J. Wright
 F. pennsylvanica Marsh.; var. subintegerrima (Vahl) Fern.
 Syringa vulgaris L. (1)
 Forsythia suspensa (Thunb.) Vahl (1)
 Chionanthus virginicus L.
 Ligustrum vulgare L. (1)

142. LOGANIACEAE (Logania Family—Indian Pink)
 Spigelia marilandica L.

143. GENTIANACEAE (Gentian Family—Rose Pink, Gentian, Pennywort)
 Sabatia angularis (L.) Pursh
 S. campanulata (L.) Torr.
 Gentiana decora Pollard

G. linearis Froel.

G. quinquefolia L.

Bartonia virginica (L.) BSP.

Obolaria virginica L.

144. APOCYNACEAE (Dogbane Family—includes Periwinkle, Spreading Dogbane)

Amsonia tabernaemontana Walt.

Vinca minor L. (1)

Apocynum androsaemifolium L.

145. ASCLEPIADACEAE (Milkweed Family—Milkweed, Anglepod)

Asclepias amplexicaulis Sm.

A. exaltata L.

A. incarnata L. var. *pulchra* (Ehrh.) Pers.

A. quadrifolia Jacq.

A. tuberosa L.

A. variegata L.

A. verticillata L.

Gonolobus obliquus (Jacq.) Schultes (2) (3)

146. CONVOLVULACEAE (Convolvulus Family—Morning Glory, Bindweed, Dodder)

Ipomoea coccinea L. (1)

I. hederacea L.

I. lacunosa L.

I. pandurata (L.) G. F. W. Mey.

I. purpurea L. (1)

Convolvulus sepium L.; var. *fraterniflorus* Mackenz. & Bush

Cuscuta campestris Yuncker

C. compacta Juss.

C. gronovii Willd. var. *vulviviga* Engelm.

C. rostrata Shuttlw.

147. POLEMONIACEAE (Phlox Family—Jacobs Ladder, Phlox)

Polemonium reptans L.

Phlox amoena Sims

P. amplifolia Britt.

P. carolina L. var. *triflora* (Michx.) Wherry

P. divaricata L.

P. glaberrima L. var. *interior* Wherry

P. maculata L.; var. *purpurea* Michx. (var. *pyramidalis* (Sm.)

Wherry)

P. paniculata L.

P. stolonifera Sims

P. subulata L. (1)

148. HYDROPHYLLACEAE (Waterleaf Family—Waterleaf, Phacelia)

Hydrophyllum canadense L.

H. virginianum L. var. *atranthum* (E. J. Alex.) Constance
Phacelia bipinnatifida Michx.; var. *plummeri* Wood

P. dubia (L.) Trel.

P. fimbriata Michx.

P. purshii Buckl.

149. BORAGINACEAE (Borage Family—Bugloss, Gromwell, Beggars' Lice, Forget-me-not, Virginia Bluebells, Stickseed)

Echium vulgare L. (1)

Lithospermum arvense L. (1)

Cynoglossum virginianum L.

Myosotis macrosperma Engelm.

M. scorpioides L. (1)

M. verna Nutt.

Mertensia virginica (L.) Pers.

Hackelia virginiana (L.) I. M. Johnston

150. VERBENACEAE (Vervain Family—White V., French Mulberry)

Verbena urticifolia L.

Callicarpa americana L.

151. LABIATAE (Mint Family)

Trichostemma dichotomum L.

Teucrium canadense L. var. *virginicum* (L.) Eat.

Scutellaria elliptica Muhl. var. *hirsuta* (Short) Fern.

S. incana Biehler var. *punctata* (Chapm.) Mohr

S. integrifolia L.

S. lateriflora L.

S. ovata Hill var. *venosa* Epl.

Agastache scrophulariaefolia (Willd.) Ktze.

Nepeta cataria L. (1)

Glechoma hederacea L. (1)

Prunella vulgaris L. var. *lanceolata* (Bart.) Fern.

Physostegia virginiana (L.) Benth.

Leonurus cardiaca L. (1)

Lamium amplexicaule L. (1)

L. purpureum L. (1)

Stachys clingmanii Small

S. palustris L.

S. riddellii House

S. salvioides Small

S. tenuifolia Willd. var. *hispida* (Pursh) Fern.

Salvia lyrata L.

Monarda clinopodia L.
M. didyma L.
M. fistulosa L.
M. media Willd. (1 probably)
Blephilia hirsuta (Pursh) Benth.
B. ciliata (L.) Benth.
Hedeoma pulegioides (L.) Pers.
Melissa officinalis L. (1)
Satureja vulgaris (L.) Fritsch. var. *neogaea* Fern.
Pycnanthemum beadlei (Small) Fern.
P. flexuosum (Walt.) BSP.
P. incanum Michx. var. *loomisii* (Nutt.) Fern.
P. montanum Michx.
P. muticum (Michx.) Pers.
P. pycnanthemooides Fern. var. *viridifolium* Fern.
Cunila origanoides (L.) Britt.
Lycopus rubellus Moench.
L. americanum Muhl. (3)
L. uniflorus Michx.
L. virginicus L.; *L. virginicus* × *uniflorus*
Mentha piperita L. (1)
M. spicata L. (1)
Collinsonia canadensis L.; var. *punctata* (Ell.) Gray
Perilla frutescens (L.) Britt. (1)

152. SOLANACEAE (Nightshade Family—Nightshade, Ground Cherry, Apple-of-Peru, Jimsonweed)

Solanum carolinense L.
S. americanum Mill.
Physalis pubescens L.
P. pruinosa L.
P. subglabrata Mackenz. & Bush.
P. virginiana Mill.
Nicandra physalodes (L.) Pers. (1)

Datura stramonium L. (1); var. *tatula* (L.) Torr. (1) (2)

153. SCROPHULARIACEAE (Figwort Family—Mullein, Toadflax, Figwort, Turtlehead, Beardtongue, Princess Tree, Monkey Flower, Hedge Hyssop, etc.)

Verbascum thapsus L. (1)
V. blattaria L. (1)
Linaria canadensis (L.) Dumont
L. vulgaris Hill (1)
Scrophularia marilandica L.

Chelone chlorantha Penn. & Wheery
C. glabra L.; var. *elatior* Raf.
C. lyoni Pursh
Penstemon brevisepalus Pennell
P. canescens Britt.
P. hirsutus (L.) Willd.
P. laevigatus Ait.
P. smallii Heller
Paulownia tomentosa (Thunb.) Steud. (1)
Mimulus alatus Ait.
M. ringens L.
Mazus japonicus (Thunb.) Ktze. (1)
Gratiola neglecta Torr.
Lindernia dubia (L.) Pennell
Digitalis purpurea L. (1)
Veronica anagallis-aquatica L.
V. arvensis L. (1)
V. officinalis L. (1)
V. peregrina L.
V. serpyllifolia L. (1)
Gerardia decemloba Greene
G. flava L.
G. laevigata Raf.
G. pectinata (Nutt.) Benth.
G. pedicularia L.; var. *austromontana* (Pennell) Fern.
G. purpurea L.
G. tenuifolia Vahl.
G. setacea (Walt.) J. F. Gmel.
G. virginica (L.) BSP.
Castilleja coccinea (L.) Spreng.
Melampyrum lineare Desr. var. *americanum* (Michx.)
 Beauv.; var. *latifolium* Bart.
Pedicularis canadensis L.
 154. **BIGNONIACEAE** (Bignonia Family—Trumpet Creeper, Cross-vine,
 Catalpa)
Campsis radicans (L.) Seem.
Bignonia capreolata L.
Catalpa speciosa Warder (1)
 156. **OROBANCHACEAE** (Broomrape Family—Beech-drops, Cancer-root,
 Broom-rape)
Epifagus virginiana (L.) Bart.

Conopholis americana (L.) Wallr.
 Orobanche uniflora L.

158. ACANTHACEAE (Acanthus Family—Water Willow, Ruellia)
 Justicia americana (L.) Vahl
 Ruellia caroliniensis (Walt.) Steud.
 R. humilis Nutt.

159. PHRYMACEAE (Lopseed Family)
 Phryma leptostachya L.

160. PLANTAGINACEAE (Plantain Family)
 Plantago aristata Michx.
 P. lanceolata L. (1)
 P. rugelii Dcne.
 P. virginica L.

161. RUBIACEAE (Madder Family—Bedstraw, Buttonweed, Partridgeberry, Buttonbush, Bluet)
 Galium aparine L.
 G. circaeans Michx.
 G. lanceolatum Torr.
 G. latifolium Michx.
 G. obtusum Bigel.
 G. pilosum Ait.; var. puncticulosum (Michx.) T. & G.
 G. tinctorium L.; var. subbiflorum (Weig.) Fern.
 G. triflorum Michx. var. asprelliforme Fern.
 Diodia teres Walt.
 D. virginiana L.
 Mitchella repens L.
 Cephalanthus occidentalis L.
 Houstonia caerulea L.
 H. purpurea L.
 H. serpyllifolia Michx.; forma alba Alex.
 H. tenuifolia Nutt.

162. CAPRIFOLIACEAE (Honeysuckle Family—including Honeysuckle, Horse Gentian, Viburnum, Elder)
 Diervilla sessilifolia Buckl.
 Lonicera canadensis Bartr.
 L. japonica Thunb. (1)
 L. sempervirens L.
 Symphoricarpos orbiculatus Moench.
 Triosteum aurantiacum Bickn.
 Viburnum acerifolium L.; var. glabrescens Rehd.; forma ovatum Rehd.
 V. alnifolium Marsh.

V. cassinoides L.
V. dentatum L. (incl. *V. scabrellum* (T. & G.) Chapm.)
V. prunifolium L.
V. opulus L. (1)
V. recognitum Fern.
V. rufidulum Raf.
Sambucus pubens Michx.
S. canadensis L.; *S. pubens* × *canadensis*
 164. VALERIANACEAE (Valerian Family)
Valerianella radiata (L.) Dufr.
 165. DIPSACACEAE (Teasel Family)
Dipsacus sylvestris Huds. (1)
 166. CUCURBITACEAE (Gourd Family—Melonette)
Melothria pendula L.
 167. CAMPANULACEAE (Bluebell Family—Venus Looking-glass, Bell-flower, Lobelia)
Specularia perfoliata (L.) A. DC.
Campanula americana L.
C. aparinoides Pursh
C. divaricata Michx.
Lobelia cardinalis L.
L. inflata L.
L. puberula Michx. (also white form)
L. siphilitica L.
L. spicata Lam.; var. *leptostachys* (A. DC.) Mackenz. & Bush
 168. COMPOSITAE (Composite Family—includes Thoroughworts, Aster, Golden Aster, Goldenrods, Sunflowers, etc.)
Vernonia altissima Nutt.
V. noveboracensis (L.) Michx.
Elephantopus carolinianus Willd.
E. tomentosus L.
Eupatorium album L.
E. aromaticum L.
E. coelestinum L.
E. fistulosum Barratt
E. hyssopifolium L.
E. maculatum L.
E. perfoliatum L.
E. purpureum L.
E. rotundifolium L.
E. rugosum Hout.; var. *roanense* (Small) Fern.
E. serotinum Michx.

E. sessilifolium L.
Kuhnia eupatorioides L.
Liatris spicata (L.) Willd.
L. squarrulosa Michx.
Chrysopsis mariana (L.) Ell.
C. nervosa (Willd.) Fern.
Solidago altissima L.
S. arguta Ait.
S. bicolor L.; var. *ovalis* Farw.
S. boottii Hook.
S. curtisii T. & G.
S. erecta Pursh
S. flaccidifolia Small
S. flexicaulis L.
S. gigantea Ait.
S. glomerata Michx.
S. hispida Muhl.
S. juncea Ait.
S. nemoralis Ait.; var. *haleana* Fern.
S. odora Ait.
S. patula Muhl.
S. puberula Nutt.
S. roanensis Porter; var. *monticola* (T. & G.) Fern.
S. rugosa Mill. var. *aspera* (Ait.) Fern. (*S. aspera* Ait.)
S. speciosa Nutt. var. *angustata* T. & G.
S. sphacelata Raf.
Aster acuminatus Michx.
A. cordifolius L.
A. curtisii T. & G.; *A. curtisii* × *lateriflorus*
A. divaricatus L.
A. chlorolepis Burgess (3) (usually included by authors with
 A. *divaricatus*)
A. dumosus L.; *A. dumosus* × *pilosus*
A. infirmus Michx.
A. lateriflorus (L.) Britt.
A. linariifolius L.
A. lowrieanus Porter
A. macrophyllus L.; var. *ianthinus* (Burgess) Fern.
A. oblongifolius Nutt.
A. patens Ait.; var. *phlogifolius* (Muhl.) Nees.
A. pilosus Willd.; var. *platyphyllus* (T. & G.) Blake
A. puniceus L.

A. sagittifolius Wedemeyer
A. surculosus Michx.
A. sylvestris Burgess (3); var. *loriformis* Burgess
A. umbellatus Mill.
A. undulatus L.
Erigeron annuus (L.) Pers.
E. canadensis L.
E. philadelphicus L.
E. pulchellus Michx.
E. strigosus Muhl.
Sericocarpus asteroides (L.) BSP.
S. linifolius (L.) BSP.
Pluchea camphorata (L.) DC.
Antennaria neglecta Greene
A. plantaginifolia (L.) Hook.
A. solitaria Rydb.
Gnaphalium obtusifolium L.; var. *praecox* Fern.; var. *micradenium* Weath.
G. purpureum L.
Ambrosia artemisiifolia L.; var. *elatior* (L.) Descourtils
A. trifida L.
Xanthium chinense Mill.
X. strumarium L. (1)
Polymnia uvedalia L.
Silphium aspernum Hook. (*S. scaberrimum*; *S. asteriscus* L.)
S. compositum Michx.
S. integrifolium Michx.; var. *laeve* T. & G.
Parthenium integrifolium L.
Heliopsis helianthoides (L.) Sweet
Rudbeckia fulgida Ait.
R. hirta L. (*R. monticola* Small)
R. laciniata L.; var. *humilis* Gray
R. serotina Nutt. (1) (*R. hirta* var.)
R. triloba L.
R. umbrosa C. L. Boynt. & Beadle
Helianthus angustifolius L. (3)
H. atrorubens L. (3)
H. decapetalus L. (3)
H. divaricatus L. (3)
H. laetiflorus Pers. (3)
H. microcephalus T. & G. (3)
H. strumosus L. (3)

Actinomeris alternifolia (L.) DC.
Verbesina occidentalis (L.) Walt.
Coreopsis auriculata L.
C. major Walt.; var. *stellata* (Nutt.) Robins.
C. pubescens Ell.
C. tinctoria Nutt. (1)
C. tripteris L.
Bidens bipinnata L.
B. frondosa L.
Galinsoga ciliata (Raf.) Blake (1)
G. parviflora Cav. (1) (2)
Helenium autumnale L.
H. nudiflorum Nutt.
Achillea millefolium L. (1)
Anthemis cotula L. (1)
Chrysanthemum leucanthemum L. var. *pinnatifidum* Lecoq & Lamotte (1)
Artemisia ludoviciana Nutt. var. *mexicana* (Willd.) Fern. (1)
 (from southwest U. S.)
Erechtites hieracifolia (L.) Raf. var. *intermedia* Fern.
Cacalia atriplicifolia L.
C. muhlenbergii (Sch. Bip.) Fern.
Senecio aureus L.
S. obovatus Muhl.
S. rugelia A. Gray
S. smallii Britt.
Arctium minus (Hill) Bernh. (1)
Cirsium altissimum (L.) Spreng.
C. arvense (L.) Scop. (1)
C. muticum Michx.
C. vulgare (Savi) Tenore (1)
C. carolinianum (Walt.) Fern. & Schub.
Centaurea cyanus L. (1)
Lapsana communis L. (1)
Cichorium intybus L. (1)
Krigia biflora (Walt.) Blake (*Cynthia virginica* (L.) Don)
K. montana Michx. (*Cynthia montana* (Michx.) Standley)
K. virginica (L.) Willd.
Serinia oppositifolia (Raf.) Ktze.
Taraxacum erythrospermum Andrz.
T. officinale Weber (1)
Lactuca biennis (Moench) Fern.

L. canadensis L.
 L. floridana Gaertn. var. villosa (Jacq.) Cronq. (*Mulgedium villosum* Small)
 L. scariola L. (1)
 Pyrrhopappus carolinianus (Walt.) DC.
 Crepis tectorum L. (1)
 Prenanthes altissima L.
 P. alba L.
 P. trifoliata (Cass.) Fern.
 P. roanensis Chickering
 Hieracium gronovii L. (3)
 H. Marianum Willd. (3) (*H. greenii* Porter & Britt.)
 H. paniculatum L. (3)
 H. pilosella L. (1) (3)
 H. scabrum Michx. (3)
 H. venosum L. (3)

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